

Title (en)

An image pre-processor in a device for direct electrostatic printing

Title (de)

Bildvorverarbeitung in einer Vorrichtung für direktes elektrostatisches Drucken

Title (fr)

Pré-processeur d'image dans un dispositif d'impression électrostatique directe

Publication

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Application

EP 96200690 A 19960314

Priority

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Abstract (en)

An image preprocessor is disclosed for a DEP device, wherein the image preprocessor corrects digital image data before printing. The image pre-processor preferably performs at least one the following steps : 1. correcting the image input density according to a first look up table (LUT) for obtaining a desired grey scale value, 2. correcting grey scale values by a second LUT for varying toner fluxes 111 through different printing apertures 107, said second LUT being desirable for adjusting the toner flux 111 to the differing distance of printing apertures 107 belonging to different rows of apertures 107, and for adjusting the toner flux 111 through various printing apertures 107 having varying aperture diameter or shape. This is referred to as a shading correction in a direction orthogonal to the print direction), 3. correcting grey scale value for the grey scale values of neighbouring pixels, that influence the toner flux 111 for forming the actual image pixel, referred to as neighbour compensation, 4. correcting grey scale values for the image density that has been printed through the individual printing aperture 107 prior to the actual printing the required pixel, called previous compensation, 5. correcting grey scale values for the hardware design of the printhead structure 106, i.e. assignment of image pixels to controlling IC number and output channel number per IC, 6. expressing grey scale values as a time modulated or voltage modulated output signal, 7. transferring image output signals in a serial data stream to a FIFO memory from which the output signals are preferably converted to a parallel data stream that is fed to driving IC's, that are used to put a voltage to the individual control electrodes 106a of the printhead structure 106 in the DEP device 100. <IMAGE>

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Citation (search report)

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